

Appln No. 10/677,994

Amdt date May 6, 2005

Reply to Office action of February 25, 2005

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A cable capable of providing a visual indication of traffic, said cable comprising:

one or more wires; and

at least one connector connected to the wires, said connector having detection circuitry capable of detecting the traffic on the cable and generating a detection signal responsive to the traffic, and a traffic indicator coupled to the detection circuitry to provide the visual indication of the traffic responsive to the detection signal,

said detection circuitry comprising:

driving circuitry coupled to at least one said wire, said at least one said wire carrying a data signal; and

a transistor coupled to the driving circuitry and the traffic indicator,

wherein the driving circuitry drives the transistor responsive to the data signal to generate the detection signal, which is used to drive the traffic indicator[[.]], and

wherein the driving circuitry comprises:

a driving transistor having a first electrode, a second electrode and a third electrode,

wherein the first electrode is coupled to said at least one data signal carrying wire, the second electrode is

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coupled to power and a gate of the transistor, and the third electrode is coupled to ground, and

wherein the transistor turns on when the driving transistor turns off, and the transistor turns off when the driving transistor turns on, thereby generating the detection signal.

2. (Original) The cable of claim 1, wherein said cable is selected from a group consisting of USB, FireWire, COM, LPT and SCSI cables.

3. (Original) The cable of claim 1, wherein the traffic indicator comprises one selected from a group consisting of a light emitting diode (LED), an electro-luminescent lamp, a translucent connector end and a translucent wire covering.

4. (Original) The cable of claim 1, wherein at least one of the wires carries power, and the traffic indicator receives power from said at least one of the wires that carries power.

5. (Original) The cable of claim 1, wherein the driving circuitry comprises a diode.

6. (Canceled)

7. (Currently amended) ~~The cable of claim 1,~~ A cable capable of providing a visual indication of traffic, said cable comprising:

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one or more wires; and
at least one connector connected to the wires, said
connector having detection circuitry capable of detecting the
traffic on the cable and generating a detection signal
responsive to the traffic, and a traffic indicator coupled to
the detection circuitry to provide the visual indication of the
traffic responsive to the detection signal,

said detection circuitry comprising:

driving circuitry coupled to at least one said
wire, said at least one said wire carrying a data signal; and

a transistor coupled to the driving circuitry and
the traffic indicator,

wherein the driving circuitry drives the transistor
responsive to the data signal to generate the detection signal,
which is used to drive the traffic indicator[[]], and wherein
the driving circuitry comprises:

first and second driving transistors, each having a
first [[gate]] electrode, a second [[gate]] electrode and a third
[[gate]] electrode,

wherein for the first driving transistor, the first
[[gate]] electrode is coupled to said at least one data signal
carrying wire, the second [[gate]] electrode is coupled to
power, and the third [[gate]] electrode is coupled to ground,

wherein for the second driving transistor, the first
[[gate]] electrode is coupled to the second [[gate]] electrode
of the first transistor, the second [[gate]] electrode is
coupled to power and a gate of the transistor, and the third
[[gate]] electrode is coupled to ground, and

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wherein the transistor turns on when the first driving transistor turns on, and the transistor turns off when the first driving transistor turns off, thereby generating the detection signal.

8. (Original) The cable of claim 1, wherein said at least one connector comprises an inner casing, an outer casing and a plug, wherein the inner casing at least partially envelopes the detection circuitry, the outer casing at least partially envelopes the inner casing, and the plug is coupled to said one or more wires and the detection circuitry.

9. (Original) The cable of claim 8, wherein the inner casing has an opening formed thereon for allowing light generated by the traffic indicator to exit the inner casing.

10. (Original) The cable of claim 8, wherein at least a portion of at least one of the inner casing and the outer casing is either transparent or semi-transparent to allow at least a portion of light generated by the traffic indicator to exit the connector.

11. (Original) The cable of claim 1, wherein the driving circuitry comprises an amplifier for amplifying the data signal.

12. (Currently amended) An adapter for a cable having one or more wires to provide a visual indication of traffic on the cable, said adapter comprising:

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a first plug for interfacing with the cable;

a second plug for interfacing between the first plug and an electronic device; and

detection circuitry capable of detecting the traffic on the cable and generating a detection signal responsive to the traffic, and a traffic indicator coupled to the detection circuitry to provide the visual indication of the traffic responsive to the detection signal,

said detection circuitry comprising:

driving circuitry coupled to at least one said wire in use, said at least one said wire carrying a data signal; and

a transistor coupled to the driving circuitry and the traffic indicator,

wherein the driving circuitry in use drives the transistor responsive to the data signal to generate the detection signal, which is used to drive the traffic indicator[[.]],

wherein at least one of the wires carries power, and the traffic indicator in use receives power from said at least one wire that carries power, and

wherein the driving circuitry comprises:

a driving transistor having a first gate, a second gate and a third gate,

wherein, in use, the first gate is coupled to said at least one data signal carrying wire, the second gate is coupled to power and a gate of the transistor, and the third gate is coupled to ground, and

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wherein, in use, the transistor turns on when the driving transistor turns off, and the transistor turns off when the driving transistor turns on, thereby generating the detection signal.

13. (Original) The adapter of claim 12, wherein said adapter is capable of interfacing with a cable selected from a group consisting of USB, FireWire, COM, LPT and SCSI cables.

14. (Original) The adapter of claim 12, wherein the traffic indicator comprises one selected from a group consisting of a light emitting diode (LED), an electro-luminescent lamp, a translucent connector end and a translucent wire covering.

15. (Canceled)

16. (Currently amended) The adapter of claim ~~[[15]]~~ 12, wherein the driving circuitry comprises a diode.

17. (Canceled)

18. (Currently amended) ~~The adapter of claim 15,~~ An adapter for a cable having one or more wires to provide a visual indication of traffic on the cable, said adapter comprising:

a first plug for interfacing with the cable;

a second plug for interfacing between the first plug and an electronic device; and

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detection circuitry capable of detecting the traffic on the cable and generating a detection signal responsive to the traffic, and a traffic indicator coupled to the detection circuitry to provide the visual indication of the traffic responsive to the detection signal,

said detection circuitry comprising:

driving circuitry coupled to at least one said wire in use, said at least one said wire carrying a data signal;
and

a transistor coupled to the driving circuitry and the traffic indicator,

wherein the driving circuitry in use drives the transistor responsive to the data signal to generate the detection signal, which is used to drive the traffic indicator,
and

wherein the driving circuitry comprises:

first and second driving transistors, each having a first [[gate]] electrode, a second [[gate]] electrode and a third [[gate]] electrode,

wherein, in use, for the first driving transistor, the first [[gate]] electrode is coupled to said at least one data signal carrying wire, the second [[gate]] electrode is coupled to power, and the third [[gate]] electrode is coupled to ground,

wherein, in use, for the second driving transistor, the first [[gate]] electrode is coupled to the second [[gate]] electrode of the first transistor, the second [[gate]] electrode is coupled to power and a gate of the transistor, and the third [[gate]] electrode is coupled to ground, and

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wherein, in use, the transistor turns on when the first driving transistor turns on, and the transistor turns off when the first driving transistor turns off, thereby generating the detection signal.

19. (Original) The adapter of claim 12, wherein the driving circuitry comprises an amplifier for amplifying the data signal.

20. (Currently amended) A traffic detector that can detect traffic in a cable having one or more wires for connecting a computer to a peripheral device, said traffic detector comprising:

detection circuitry capable of detecting electromagnetic radiation generated by the traffic in at least one of the wires, and of generating a detection signal in response; and

a traffic indicator capable of receiving the detection signal, and of providing a visual indication of the traffic responsive to the detection signal[[.]],

wherein said traffic detector comprises a flexible portion that can be wrapped around the cable.

21. (Original) The traffic detector of claim 20, wherein said cable is selected from a group consisting of USB, FireWire, COM, LPT and SCSI cables.

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22. (Original) The traffic detector of claim 20, wherein the traffic indicator comprises one selected from a group consisting of a light emitting diode (LED), an electroluminescent lamp, a translucent connector end and a translucent wire covering.

23. (Original) The traffic detector of claim 20, wherein at least one of the wires carries data, and the detection circuitry detects traffic through monitoring the electromagnetic radiation generated by said at least one wire that carries data.

Claims 24-25. (Canceled)